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ABSTRACT

This document is the first of five curriculum modules containing instructional units for disabled students who need assistance in mastering the function keys for the ExecuWriter II, a phototypesetter manufactured by Compugraphics of Wilmington, Massachusetts. The purpose of these modules is to provide supplementary instruction on an individualized or small group basis. All the modules are designed for use in a resource room by special educators as supportive instruction for vocational shop curricula. Module 1 contains both a student and teacher's manual for lessons 1-3, which provide information on the functions of the paper feed key, start key, and return key. Each lesson also includes exercises for practicing each key and a progress check. At the end of the module is a practice exercise using all the keys presented in lessons 1-3. The teacher's manual provides information sheets, teaching strategies, student objectives, and evaluation keys for each lesson. (BM)

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Project VITA

PHOTOTYPESETTING

Module I
Lessons 1, 2, and 3

Teacher Manual

Edited by David C. Gardner and Margaret A. Kurtz

Prepared by Michelle A. Mika and Linda Unsworth

A collaborative project with Blue Hills Regional Technical School, Project No. 498AH50296

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INTRODUCTION

This module is one of a series of five modules developed by Project VITA (Vocat onal Instruction, Training and Assessment), Project No. 498AH 50296, a federally-funded vocational education project for students with special needs. Project VITA is a collaborative effort of the Department of Business and Career Education, School of Education, Boston University and the Blue Hills Regional Vocational/Technical School in Canton, Massachusetts in cooperation with: Whittier Regional Vocational Technical High School, Haverhill, Massachusetts; Northeast Metropolitan Regionel Vocational School, Wakefield, Massachusetts; Minuteman Regional Vocational Technical School, Lexington, Massachusetts; and Joseph P. Keefe Technical School, Framingham, Massachusetts. The purpose of each curriculum module is to provide *supplemental* vocational instruction for special needs students enrolled in a vocational program. All modules are designed for use in a resource room by special educators as *supportive* instruction for vocational shop curricula.

The phototypesetting modules are designed for use with special students who have mild learning problems (e.g., educable mentally retarded, learning disabled, "slow learners"). The purpose of these modules is to provide supplemental instruction on an individualized or small group basis for special needs students who are enrolled in the graphic arts program. More specifically, these modules provide a series of supplementary units of instruction for students who need special assistance in mastering the function keys for the ExecuWriter II, manufactured by Compugraphics, Inc., Wilmington, Massachusetts.

PREFACE

The Department of Labor predicts that the number of unskilled jobs will be at an all-time low during this decade and in the future. Therefore, a continued emphasis on training retarded and slow-learning students for such jobs seems futile. To train these special needs students for skilled jobs, present vocational training programs must be modified.

Modification should include:

1. Changes which emphasize development of efficient and effective vocational skill training.
2. Application of learning research to the actual training of special needs students in both integrated learning settings and learning resource rooms.

In recent years, regional vocational schools have admitted increasing numbers of special needs students to their regular programs. Many of these students experienced difficulty in mastering specific vocational skills. One of the problems was that resource teachers were trained to provide back-up instruction for *academic* programs but not for *vocational shop* programs.

One of the purposes of this series of instructional modules is to assist the resource teacher who works in a vocational school to help handicapped students master specific vocational skills. Each module concentrates on providing supportive instruction for specific programs identified by both resource and vocational teachers as being critical areas for back-up instruction. This series of modules include the five modules on phototypesetting (including tapes, flashcards, teacher's manual, student handbook, phototypesetter simulator) and two modules on graphic arts communication (including a teacher's manual, student handbook, flashcards and games).

Assumption of Module Development

Two assumptions underlie the development of this series of modules: first,that students using the modules will have had training in the use of the typewriter; second

that these students will concurrently receive training with regular students in the graphic arts program.

Thus, the modules are meant to provide supplemental instruction.

Presentation Plan for the Module

PHOTOTYPESETTING is composed of five modules with a total of 16 lessons. Each module is independent. They are designed to integrate the work of the vocational and resource-room teacher. The following steps are suggested for the resource-room teacher:

1. Ask the vocational teacher to identify the special keys the student needs to practice.
2. Locate the module and lesson by checking the index.
3. Give the student the Progress Check for the lesson before he/she practices the lesson.
4. Give the student the Progress Check again after he/she practices the lesson and record the score.
5. Ask the student to repeat the lesson if he/she does not achieve 100% accuracy.
6. Give the Evaluation test at the end of each module and record the score.

Each lesson has the following parts:

1. *Word Study* Vocabulary words that the student will find in the lesson.
2. *Special Key* Name and location of the key to be presented in the lesson.
3. *Definition and Function* Explanation of what the key is used for.
4. *Relationship to the Typewriter* Comparison of the special key to one on the regular typewriter.
5. *Keyboard Practice* Exercises to be practiced on the ExecuWriter II Simulator.
6. *Progress Check* A written test to see if the student has mastered the lesson. Each module will have one additional practice exercise following the last lesson. This is called a "Job" and will give the student an opportunity to apply information learned in the module. An Evaluation (test) should be given at the end of each module.

Special Features of the Modules

One special feature of the Phototypesetting modules is the ExecuWriter II Simulator. The student may practice in the resource room on the Simulator and then return to the shop to apply what he has learned. The resource room teacher may wish to supervise the student on the actual machine at

some point to see if the student has actually learned the material.

Another special feature is the cassette tape. Using this, the student may listen to the lesson while reading the material from the book.

Conclusion

The authors of this series of modules have talked with manufacturers of phototypesetting machines, employers of phototypesetters, vocational teachers, resource room teachers, and special education teachers. When you have finished using this series of modules, they would like your suggestions, ideas and comments. A questionnaire has been enclosed for this purpose.

QUESTIONS AND ANSWERS ABOUT THE MODULE

1. **What is the purpose of the module?**

   1. To provide supplementary instruction in phototypesetting to students with special needs who are having difficulty recognizing the function keys.

2. **Does this module, then, include a lesson for *every* key?**

   2. No. Only those keys whose functions are required for the fundamental operation of the photosetting machine are included within this module. Keys used for specfic phototypesetting assignments are not included.

3. **Can I use this module with a large group of students?**

   3. Ideally, no. It is designed for use in a resource room with individualized or small group instruction. However, if a number of simulators or phototypesetting machines are available, more students can be supervised.

4. **Can a student with little or no experience in typewriting use this module?**

   4. Yes. Although prior knowledge of typewriting is advantageous in terms of speed and accuracy, it is not a prerequisite. However, good typing *techiques* should be encouraged by the instructor during the teaching of each lesson.

5. **Can I use this module even though our school has a different phototypesetting machine?**

   5. Yes. Although this particular module was written for the ExecuWriter II, its applicability to other phototypesetting machines is possible since the primary function keys in this module remain major components of any photocomposer.

6. **As a resource teacher who knows *very little* about phototypesetting, will it be possible for me to teach from this module without any special training?**

   6. Yes. This module is designed to be used by resource-room teachers.

7. **Is there a way to obtain formal training on the phototypesetting machine?**

7. Yes. Many companies offer an introductory course. A one-day program provides an adequate background.

8. **How do I use this module?**

8. As an aid to supplement instruction of phototypesetting already in progress in the graphic arts class.

9. **Must I have access to a phototypesetting machine?**

9. At some point, yes. Initial instruction involves using a simulator. However, any performance exercises requiring output proof of accuracy will require use of the actual machine.

10. **How many performance exercises requiring output proof of accuracy are there?**

10. Each *Lesson* and each *Unit Evaluation* contains at least one such performance exercise.

11. **What materials will I need?**

11. None. All necessary materials (posters, flashcards, worksheets) are provided in the packet.

12. **How will I know what materials to use for each lesson?**

12. A Resourse Key for Materials and Equipment is available at the beginning of each lesson. When a special item is necessary for instruction outlined in the teaching strategy/student objectives, it is so listed.

13. **What is the lesson pattern?**

13. Each Lesson consists of six parts:
    1. Word Study
    2. Special Key
    3. Definition and Function
    4. Relationship to the typewriter
    5. Keyboard Practice
    6. Progress Check

    Each Module contains a Job (practice exercise) and an Evaluation.

14. **How do I begin?**

14. After you are familiar with the module, give the Pre-Test to the student. These results will allow you to select the appropriate area/unit lesson in which to begin individualized supplementary instruction.

15. **What then?**

15. Read the Teacher-Information Sheet for the appropriate key and familiarize yourself with the particular lesson.

16. **What is the basic format of each lesson?**

16. Each lesson begins with a set of *General Lesson Goals* followed by listings of *Teaching Straegies* and corresponding *Student Objectives.*

17. How do I know when the student has satisfactorily learned the key?	17. At the end of the lesson for each key there is a series of objectives which the student must be able to preform with 100% accuracy before proceeding to the next key.
18. Is there a way to record this evaluation?	18. Yes. An *Oral Examination Checklist* is provided and there is a Progress Check that should be given at the end of each lesson.
19. What if thestudent is not able to complete the final objectives?	19. Return to the appropriate Teaching Strategies and try again. Use the teaching materials according to the learning style of the student.
20. Is there any other method of evaluation?	20. Yes. At the end of each unit there is a Unit Evaluation consisting of a paper and pencil test and one performance exercise (which requires the use of the actual phototypesetting machine).
21. Can this paper and pencil test be given orally?	21. Yes. With optional use of flashcards, it can be adapted to various testing styles.
22. How can I respond to this module?	22. A questionnaire for your suggestions and ideas about the Module is included with the packet.

INTRODUCTION TO PHOTOTYPESETTING*

Providing quality typeset copy in many different styles and seven sizes, the ExecuWriter phototypesetter employs simple typewriter-like procedures.

Typesetting, as used in printing, describes the process of setting and arranging type. The method used with the ExecuWriter is generally known as photocomposition.

A standard secretary-shift typewriter keyboard provides for complete operator control. Simply by striking a key, manuscript copy is automatically set to full measures or positioned to specific areas. A character display shows all characters and functions as they are typed from the photocomposer keyboard.

The photocomposer, working like a camera, consists of a light projection system, a negative film strip containing the alphabet, numeric and miscellaneous characters, a holder for photographic material and a lens. The characters are photographed with an instantaneous flash of light, passing through the lens and exposed on the photographic material.

As characters are typed, they are retained in the system's memory, line by line. Activation of the typewriter Return key causes the character images to be flashed and photographed onto the material. Like a typewriter, as each line is ended, the material is automatically advanced in preparation for the next line.

After completion of the typesetting operation, the exposed photographic material is processed. This process is similar to the development of film frome o dinery camera. The completed copy is then pasted onto a form from which a negative is made and final steps are taken for printing.

*Source: ExecuWriter I and II; Applications Manual — Compugraphic, Inc.

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TEACHER INFORMATION SHEET

UNIT I: LESSON: INTRODUCTION TO KEYBOARD

Definition and Function:

A standard secretary-shift typewriter keyboard provides for complete operator control. Simply by striking a key, manuscript copy is automatically set to full measures or positioned to specific areas. A character display shows all characters and functions as they are typed from the photocomposer keyboard.

Relationship to Typewriter:

With the exception of additional characters and functions, the keyboard is similar to a standard typewriter. Capital or upper case letters are accessed by the SHIFT key, with the Shift condition indicated by a light on the Control Panel. When the SHIFT key is released, the keyboard returns to lower case and the light goes out. A SHIFT LOCK key is provided for setting all capital characters. The character images for both Shift and Unshift positions are shown on the keytops.

REFERENCE: ExecuWriter II, Applications Manual, pages 2, 4, 16, 36.

KEYBOARD

INTRODUCTION TO KEYBOARD

P# --Poster Number
EXII S --ExecuWriter II Simulator
EXII --ExecuWriter II (machine)
WS# --Worksheet Number
OC --Oral Checksheet
TW --Typewriter
FC --Flash Cards

General Lesson Goals: **Upon completion of the lesson, the student will:**

1) Recognize what the KEYBOARD looks like.
2) Locate the KEYBOARD area.

Mat. & Equip.	Teaching Strategies	Student Objectives	Motivational Techniques	Supplementary Strategies
P# 1	1. Teacher points to the area on instructional poster which is called the keyboard.			
P# 1	2a Teacher calls attention to the differences and similarities of the typewriter and the EXII S.			
EXII S	2b Teacher points to alphabetic keyboard on EXII S.			
TW	2c. Teacher points to alphabetic keyboard on typewriter.			
EXII S TW	2d. Teacher points to section of special keys on left and right of alphabetic keyboard on EXII which are not on a typewriter keyboard.			
EXII S	3. Teacher asks students to point to keyboard area on EXII S.	3. Student points to keyboard area on EXII S.		
EXII S	4. Teacher asks student to point the section of special key on left and right of alphabetic keyboard on EXII S which are not on a typewriter.	4. Student points to special keys on EXII S, not present on a typewriter keyboard.		
	5. Teacher checks student progress with teacher-made oral examination question-answer session. The student must answer with 100% accuracy in order to proceed to the next lesson.	5a. Student points to keyboard areas on typewriter and EXII S which are similar. 5b. Student points to the section of special keys on ths left and right of the alphabetic keyboard on EXII S which are not present on typewriter.		

TEACHER INFORMATION SHEET

UNIT I: LESSON 1--PAPER FEED KEY

Definition and function:

The PAPER FEED key, while depressed, advances the photographic material. It is used when loading the paper, and prior to and after completion of typesetting manuscript copy.

When loading or removing the photographic material, some part of the paper will be exposed to the light. To be sure that typeset copy will not be set on an exposed area, the PAPER FEED function key should be activated for approximately TEN SECONDS before keyboarding. It should also be activated before removing the cassette for processing. This advances the last lines of typeset copy into the lightproof cassette for developing.

REFERENCE: ExecuWriter II, Applications Manual, pages 37–38.

Relationship to Typewriter:

In typewriting you must leave a top and bottom margin on your typing paper; you must also allow for this when typesetting. In order to move the photographic paper ahead (show with a roll of paper), you must **first** depress PAPER FEED.

KEYBOARD SYMBOL

DISPLAY PANEL SYMBOL

N/A

TEACHER INFORMATION SHEET

UNIT I: LESSON 1--PAPER FEED KEY

Definition and function:

The PAPER FEED key, while depressed, advances the photographic material. It is used when loading the paper, and prior to and after completion of typesetting manuscript copy.

When loading or removing the photographic material, some part of the paper will be exposed to the light. To be sure that typeset copy will not be set on an exposed area, the PAPER FEED function key should be activated for approximately TEN SECONDS before keyboarding. It should also be activated before removing the cassette for processing. This advances the last lines of typeset copy into the lightproof cassette for developing.

REFERENCE: ExecuWriter II, Applications Manual, pages 37–38.

Relationship to Typewriter:

In typewriting you must leave a top and bottom margin on your typing paper; you must also allow for this when typesetting. In order to move the photographic paper ahead (show with a roll of paper), you must **first** depress PAPER FEED.

KEYBOARD SYMBOL

DISPLAY PANEL SYMBOL

N/A

KEY: PAPER FEED

P# --Poster Number
EXII S --ExecuWriter II Simulator
EXII --ExecuWriter II (machine)
WS# --Worksheet Number
OC --Oral Checksheet
TW --Typewriter
FC --Flash Cards

General Lesson Goals: Upon completion of the lesson, the student will:

1) Recognize what the PAPER FEED key looks like.
2) Locate the PAPER FEED KEY.
3) State the function of the PAPER FEED KEY.
4) Perform the function of the PAPER FEED KEY, within a given exercise.

Mat. & Equip.	Teaching Strategies	Student Objectives	Motivational Techniques	Supplementary Strategies
P#1	1. Teacher points to the PAPER FEED key on the instructional poster.			
P#1	2. Teacher explains that the PAPER FEED key is red because it is an important key.			
EXII S	3. Teacher asks the student to point to the PAPER FEED key on the EXII S.	3. Student points to the PAPER FEED key on the EXII S.		
	4. Teacher delineates using visual materials and concrete examples the definition of, function of and abbreviated symbol of the PAPER FEED key.			
EXII S TW	5. Teacher compares the function of the PAPER FEED key on the EXII S to allow for top and bottom margins on paper when using the typewriter.			
EXII S	6. Teacher demonstrates the use of PAPER FEED key by pressing it for 10 seconds.			
EXII S	7. Teacher calls attention to the light humming sound that can be heard when key is depressed.			

KEY: PAPER FEED (cont'd)

P# --Poster Number
EXII S --ExecuWriter II Simulator
EXII --ExecuWriter II (machine)
WS# --Worksheet Number
OC --Oral Checksheet
TW --Typewriter
FC --Flash Cards

Mat. & Equip.	Teaching Strategies	Student Objectives	Motivational Techniques	Supplementary Strategies
EXII S	8. Teacher points to the character display panel stating that no symbol appears when the PAPER FEED key is depressed.			
EXII S	9. Teacher asks student to depress PAPER FEED key for 10 seconds.	9a. Student presses the PAPER FEED key for approximately 10 seconds. 9b. Student explains the use of the PAPER FEED key: advances the photographic material when pressed.		
W S#1	10. Teacher asks student to complete worksheet and explains worksheet directions.	10. Student writes in the proper keyboard symbol for the PAPER FEED key PAPER FEED in the appropriate square and colors the PAPER FEED key red.		
OC FC EXII S	11. Teacher checks students progress with teacher made oral examination question–answer session. The student must answer with 100% accuracy in order to proceed to the next lesson.	11a. Student states that the color of the START KEY is red. 11b. Student states that PAPER FEED key is red because of its importance (to functioning of phototypesetting machine) 11c. Student states that pressing the PAPER FEED key automatically advances the paper as opposed to the manual insertion of paper for the typewriter.		

KEY: PAPER FEED (cont'd)

P# --Poster Number
EXII S --ExecuWriter II Simulator
EXII --ExecuWriter II (machine)
WS# --Worksheet Number
OC --Oral Checksheet
TW --Typewriter
FC --Flash Cards

Mat. & Equip.	Teaching Strategies	Student Objectives	Motivational Techniques	Supplementary Strategies
		11d. Student names (explains) the three times when the PAPER FEED key must be pressed (used): 1) loading paper 2) prior to typesetting 3) after typesetting 11e. Student states that a light humming sound can be heard upon activation of the PAPER FEED key. 11f. Student states that the PAPER FEED key must be activated for a period of 10 seconds. 11g. Student states that there is no character display symbol for the PAPER FEED key.		

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ORAL EXAMINATION CHECKLIST

UNIT I LESSON I
KEY: PAPER FEED

STUDENT OBJECTIVES	COMPLETED	COMMENTS
11a. Student states that the color of the START KEY is red.	11a.	11a.
11b. Student states that PAPER FEED key is red because of its importance (to functioning of phototypesetting machine).	11b.	11b.
11c. Student states that pressing the PAPER FEED key automatically advances the paper (as opposed to the manual insertion of paper for the typewriter).	11c.	11c.
11d. Student names (explains) the three times when the PAPER FEED key must be pressed (used). 1) loading paper, 2) prior to typesetting, and 3) after typesetting.	11d.	11d.
11e. Student states that a light humming sound can be heard upon activation of the PAPER FEED key.	11e.	11e.
11f. Student states that the PAPER FEED key must be activated for a period of 10 seconds.	11f.	11f.
11g. Students states that there is no character display symbol for the PAPER FEED key.	11g.	11g.

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TEACHER INFORMATION SHEET

UNIT I: LESSON 2 – START KEY

Definition and Function:

When pressed, the START function clears the photocomposer and resets the functions as fixed on the Control Panel. The conditions will be as follows:

a. Unshift (Lower Case)
b. Line Measure
c. Line Space as set on the Control Panel

The machine should be cleared before typesetting manuscript copy.

Relationship to Typewriter:

One of the first steps in using an electric typewriter (There is no relationship to a manual typewriter.) is to turn the machine on with the "start switch," and this follows with the Execuwriter II: In order to typeset, the operator must first depress the START key. The only similarity is that depressing the START key on the Execuwriter II and depressing or turning the "start switch" on the electric typewriter are required first steps in the operation of both machines; the functions, however do differ.

REFERENCE: Execuwriter II, Applications Manual, pages 37-38.

KEYBOARD SYMBOL

DISPLAY PANEL SYMBOL

N/A

KEY: START KEY

P# --Poster Number
EXII S --ExecuWriter II Simulator
EXII --ExecuWriter II (machine)
WS# --Worksheet Number
OC --Oral Checksheet
TW --Typewriter
FC --Flash Cards

GENERAL LESSON GOALS: Upon completion of the lesson, the student will:

1) Recognize what the START KEY looks like.
2) Locate the START KEY.
3) State the function of the START KEY.
4) Perform the function of the START KEY, within a given exercise.

Mat. & Equip.	Teaching Strategies	Student Objectives	Motivational Techniques	Supplementary Strategies
P#1	1. Teacher points to the START key on the instructional poster.			
P#1	2. Teacher explains that the START key is red because it is an important key.			
EXII S	3. Teacher asks the students to point to the start key on the EXII S	3. Student points to the START key on the EXII S.		
P#1	4. Teacher delineates using visual materials and concrete examples the definition of, function of, and symbol of the START key.			
EXII S	5. Teacher compares the START on the ExII S with the START SWITCH on the typewriter.			
EXII S	6. Teacher asks the student to depress the START key.	6. Student depresses the START key.		
EXII S	7. Teacher points to the character display panel stating that no symbol appears when the START key is depressed.			

P# --Poster Number
EXII S --ExecuWriter II Simulator
EXII --ExecuWriter II (machine)
WS# --Worksheet Number
OC --Oral Checksheet
TW --Typewriter
FC --Flash Cards

Mat. & Equip.	Teaching Strategies	Student Objectives	Motivational Techniques	Supplementary Strategies
W/S#1	8. Teacher asks the student to complete worksheet and explains worksheet directions.	8. Student writes the proper keyboard symbol for the START key (START) in the appropriate square and colors it red.		
OC FC EXII S	9. Teacher checks students progress with teacher-made oral examinations (question-answer session). The student must answer with 100% accuracy in order to proceed to the next lesson.	9a. Student states that the color of the START key is red. 9b. Student states that START key is red because of its importance (to the functioning of phototypesetting machine). 9c. Student states that the START key must always be depressed before typesetting. 9d. Student states that the START key on the phototypesetting machine sets the line measure, line space and clears the photocomposer. 9e. Student states that there is no character display symbol for the START key.		

ORAL EXAMINATION CHECKLIST
UNIT I LESSON 2
KEY: START KEY

STUDENT OBJECTIVES	COMPLETED	COMMENTS
9a. Student states that the color of the START key is red.	9a.	9a.
9b. Student states that START key is red because of its importance (to the functioning of phototypesetting machine).	9b.	9b.
9c. Student states that the START key must always be depressed before typesetting.	9c.	9c.
9d. Student states that the START key on the phototypesetting machine sets the line measure, line space and clears the photocomposer.	9d.	9d.
9e. Student states that there is no character display symbol for the START key.	9e.	9e.

TEACHER INFORMATION SHEET

UNIT I : LESSON 3– RETURN KEY

Definition and Function:

The RETURN key, like the typewriter RETURN key, is used to END EACH LINE. The Return key activates the flashing of the typeset line, followed by the line space as set on the console to allow space for the next line. The line will be set justified (margin–to–margin of the selected line measure).

FOR TEACHER INFORMATION ONLY: Once the return key is depressed, the line is typeset onto the film and cannot be cancelled (erased). Any characters, words, or lines that are typed after the RETURN key is depressed (for the preceding line) and before the RETURN key is again depressed for the present line of type can be cancelled (erased) by using the CANCEL keys (CANCEL CHARACTER, CANCEL WORD, CANCEL LINE). For more information about these keys see CANCEL KEYS, page 39.

REFERENCE: ExecuWriter II, Applications Manual, pages 39–40.

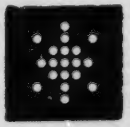
KEYBOARD SYMBOL

Prior to the introduction of the CANCEL key, tell students not to be concerned about errors (or if necessary, student can retype the line). To introduce added information to the student about the functions of keys that have not yet been introduced will cause confusion on the part of the student/learner.

Relationship to Typewriter:

It is located in the same position spot on both machines. The RETURN key ends the line, allows the space between the lines (i.e., single, double, etc.) and returns the carriage so that the printing point is at the left margin.

DISPLAY PANEL SYMBOL



KEY : RETURN KEY

P# --Poster Number
EXII S --ExecuWriter II Simulator
EXII --ExecuWriter II (machine)
WS# --Worksheet Number
OC --Oral Checksheet
TW --Typewriter
FC --Flash Cards

General Lesson Goals: Upon completion of the lesson, the student will:

1) Recognize what the RETURN KEY looks like.
2) Locate the RETURN KEY.
3) State the function of the RETURN KEY.
4) Perform the function of the RETURN KEY, within a given exercise.

Mat. & Equip.	Teaching Strategies	Student Objectives	Motivational Techniques	Supplementary Strategies
P#1	1. Teacher points to the RETURN key on the INSTRUCTIONAL POSTER.			
P#1	2. Teacher explains that the RETURN key is red because it is an important key.			
EXII S	3. Teacher asks the student to point to the RETURN key on the EXII S.	3. Student points to the RETURN key on the EXII S.		
	4. Teacher delineates using visual materials and concrete examples the definition of, function of, and abbreviated key symbol of the RETURN key.			
EXII S TW	5. Teacher compares the RETURN key on the EXII with the RETURN key on a typewriter.			
EXII S	6. Teacher demonstrates the use of the RETURN key by 1) typing words *r e t u r n k e y* and 2) depressing RETURN key.			
EXII S	7. Teacher calls attention to the special sound which can be heard when the RETURN key is depressed, explaining that when the RETURN key is depressed the sound means that words just typed are being printed on the film.			

P# --Poster Number
EXII S --ExecuWriter II Simulator
EXII --ExecuWriter II (machine)
WS# --Worksheet Number
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FC --Flash Cards

Mat. & Equip.	Teaching Strategies	Student Objectives	Motivational Techniques	Supplementary Strategies
EXII S	8. Teacher points to the character display board.			
EXII S	9. Teacher explains the differences and similarities of the character display symbols and the actual keyboard symbols.			
EXII S	10. Teacher asks student to type the word *r e t u r n*, strike space bar once, type *k e y*.	10. Student types the word r e t u r n, strikes space bar once, types k e y.		
EXII S	11. Teacher asks student to depress the RETURN key.	11. Student depresses the RETURN key.		
	12. Teacher reviews RETURN key operations and asks student to explain fuctions of RETURN key.	12. Student explains in own words that once RETURN key is pressed that material is now printed. Once RETURN key is depressed, machine is now fixed at left margin of next new line with proper spacing.		
W S#1	13. Teacher asks student to complete worksheet and explains worksheet directions.	13. Student writes in the proper keyboard symbol for the RETURN key in the appropriate square and colors RETURN key red.		

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P# --Poster Number
EXII S --ExecuWriter II Simulator
EXII --ExecuWriter II (machine)
WS# --Worksheet Number
OC --Oral Checksheet
TW --Typewriter
FC --Flash Cards

Mat. & Equip.	Teaching Strategies	Student Objectives	Motivational Techniques	Supplementary Strategies
OC FC EXII S	14. Teacher ckecks student progress with teacher-made oral examination (question-answer session.) The student must answer with 100% accuracy in order to proceed to the next lesson.	14a. Student states that the color of the RETURN key is red. 14b. Student states that RETURN key is red because of its importance (to the functioning of phototypesetting machine. 14c. Student states that RETURN key is similar to a typewriter RETURN key because 1) it is used to end all lines and 2) it returns machine to left margin of next new line with proper spacing; it is different from a typewriter RETURN key because it has an additional printing function. 14d. Student matches the appropriate keyboard symbol (RET) with its corresponding word (RETURN key). 14e. Student states that a sound can be heard upon activation of the RETURN key. 14f. Student matches the CHARACTER DISPLAY symbol ([redacted]) to the appropriate function key symbol (RET).		

ORAL EXAMINATION CHECKLIST

UNIT I LESSON 3

KEY: RETURN KEY

STUDENT OBJECTIVES	COMPLETED	COMMENTS
14a. Student states that the color of the RETURN key is red.	14a.	14a.
14b. Student states that RETURN key is red because of its importance (to the functioning of phototypesetting machine).	14b.	14b.
14c. Student states that RETURN key is similar to a typewriter RETURN key because: (1) it is used to end all lines (2) it returns machine to left margin of next line with proper spacing it is different from a typewriter RETURN key because it has an addititional printing function.	14c.	14c.
14d. Student matches the appropriate key board symbol (RET) with its corresponding word (RETURN key).	14d.	14d.
14e. Student states that a sound can be heard upon activation of the RETURN key.	14e.	14e.
14f. Student matches the CHARACTER DISPLAY symbol ( ) to the appropriate function key symbol (RET).	14f.	14f.

EVALUATION I

1. Draw a line to match the keys in Column A with the words in Column B.

Column A (Keyboard Representation)	Column B (Word)
RET	PAPER FEED
START	RETURN
PAPER FEED	START

   a. Color the above Keys in Column A the same color that they are on the actual keyboard.
   b. Underline the above keys that make a special sound when depressed.

2. Check the key that you would press to get the symbol ( ) on the character display.

RET START PAPER FEED

3. Phototypeset your name.

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EVALUATION I (cont'd)

4. Draw a line to match the keys in Column A with its function in Column B.

Column A (Keyboard Representation)	Column B (Function)
RET	Advance paper before and after typesetting copy.
START	Sets line measure and line space and clears the machine
PAPER FEED	Prints material and goes down to the next line (left margin.)

EVALUATION I KEY

QUESTIONS	ANSWERS	PAGES	OBJECTIVES
1. Draw a line to match the keys in Column A with the words in Column B.	1. RET – Return START – Start PAPER FEED – Paper Feed	1. p 14–16 p 10,11 p 5,6	1–4, 13, 14d 1–4, 8 1–4, 10
1a. Color the above keys in Column A the same color that they are on the actual keyboard.	1a. RET START RED PAPER FEED	1a. p 14,15 p 10,11 p 5,6	2, 13
1b. Underline the above keys that make a special sound when depressed.	1b. PAPER FEED RET	1b. p 5,7 p 14,16	7, 11e 7, 14e
2. Draw a line to match the key in Column A with the symbol in Column B.	2. RET	2.	8–9, 14f
NOTE: The following exercise MUST be performed on the actual Execu-Writer II, photocomposer.			
3. Phototypeset your name.	3a. Depress PAPER FEED. 3b. Depress START 3c. Type name (errors, capitalization, etc, are not important at all). 3d. Depress RETURN. 3e. Depress PAPER FEED	5–17	OVERALL UNIT OBJECTIVES
4. Draw a line to match the keys in Column A with its function in Column B.	4. RET- prints materials and goes down to the next line. START- sets line measure and line space and clears the machine. PAPER FEED- prints material and goes down to the next line (left margin).	4. p 14,15 p 10,11 p 5,6	4 & 12 4, 9d 4, 11c

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One-Third Space Key	V	15
1/18 Space Key	V	16
Paper Feed Key	I	1
Return Key	I	3
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Shift Lock Key	II	7
Space Bar	II	4
Start Key	I	2
Style Change Key	II	5

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Project VITA

PHOTOTYPESETTING

Module I
Lessons 1, 2 and 3

Student Handook

Edited by David C. Gardner and Margaret A. Kurtz
Prepared by Michelle A. Mika and Linda Unsworth

A collaborative project with Blue Hills Regional Technical School, Project No. 498AH50296

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Phase I, 1975 - 76

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FOREWORD TO THE STUDENT

PHOTOTYPESETTING is a new book. It is divided into five sections. Each section is called a module. The modules will give you information on how to use 16 of the special keys that are on the ExecuWriter II phototypesetting machine.
Before you can learn to operate an ExecuWriter II, you must know how to type. You do not need to be a fast typist to learn to phototypeset, but you must be an accurate one.

You should use this module in the resource room. You should be receiving training on the ExecuWriter II machine in the shop.

LESSON PLAN

There are 16 lessons in the five modules. Each lesson introduces a special key.

This is the lesson plan:

1. *Word Study* Meanings of words in the lesson.
2. *Special Key* Name and location of the special key.
3. *Definition and Function* What the key is used for.
4. *Relationship to the Typewriter* How the ExecuWriter II is like the regular typewriter.
5. *Keyboard Practice* Exercises using the special key.
6. *Progress Check* Questions about the lesson.

At the end of each module there is a Job. This is a Practice Exercise. You will use all of the keys presented in the module.

SPECIAL FEATURES

The Simulator is a machine with a keyboard like the ExecuWriter II. You will be able to practice your lesson in the resource room on the Simulator.

You will also receive a *cassette tape* with each module. You will use this to listen to each lesson in the module while you are reading it from the book.

INTRODUCTION TO PHOTOTYPESETTING

Phototypesetting is a way of printing words, numbers, symbols, and sentences. A *symbol* is a mark which stands for something. Phototypesetting is done on a machine like a typewriter.The phototypesetting machine you will use is called the ExecuWriter II. The ExecuWriter is a phototypesetting machine. It is like a typewriter. It has rows of keys.

The keys have letters, numbers, symbols, or a direction on them. The direction keys tell the machine to do something. Those keys are special and are not found on a typewriter. The modules will explain what those different keys are and how they are used. The pushing down of the keys is called typing.

As you type, the letters, numbers, and symbols appear in a strip on the machine. The phototypesetting machine also remembers what letters, numbers, or symbols have been typed. When you get to the end of the line, the machine makes a picture of the line on a film. The film of the line has to be developed like the film from a camera to make a picture people can see.

The phototypesetting machine also lets the person who is running the machine put the letters, numbers, and symbols where they have to be placed. This is called *photocomposition.*

It is called *photocomposition* because part of the machine works like a camera and uses film. Photocomposition is the word used to say what the ExecuWriter machine does.

After the film from the phototypesetting machine has been developed, the picture that is made is used in other steps which have to be followed to complete the printing job.

Adapted from the ExecuWriter II. Applications, Compugraphic, Inc.

Module I: Introduction to the Keyboard

WORD STUDY

character display	A panel that you can see above the keyboard It shows the letters in capital letters as they are typed. When one key has two characters or letters, only the letter in the lower case position will show.
control panel	The control panel holds the power switch, character display, and lights for typesetting functions.
function	Purpose or use.
typeset	Set in type. The type is photographed.

SPECIAL KEY

Look at the ExecuWriter II keyboard which is directly below.

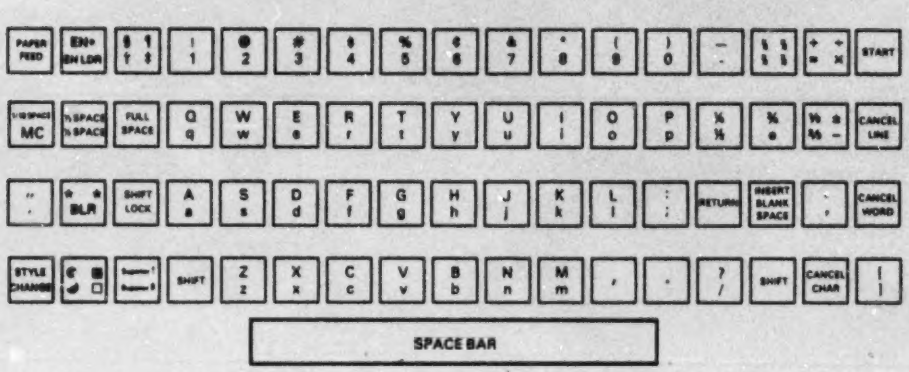
DEFINITION AND FUNCTION

When you press a key on the ExecuWriter II, the letters are typeset by themselves. A character display shows all letters and functions as you type.

RELATIONSHIP TO THE TYPEWRITER

Look at the typewriter keyboard below. The ExecuWriter II has some keys that are not on the typewriter. They are special keys.

Find the special keys on the keyboard on the ExecuWriter II.



To type capital or upper case letters, press the shift key. When you press the shift key, a light goes on on the control panel. The light goes out when the shift key is released. This is a function that is not on the typewriter.

Find the shift keys on the ExecuWriter II. There are two of them. They are on the bottom row, next to the Z on the left and next to the / on the right.

MODULE I: LESSON 1 - Paper Feed Key

WORD STUDY

activate	Work, show action, turn on.
keyboarding	Striking the keys.
press	Put your finger on the key and hold it down.

SPECIAL KEY

Find the PAPER FEED key on the keyboard below. It is on the top row of keys on the far left.

The PAPER FEED key is red. The PAPER FEED key is red because it is an important key.

DEFINITION AND FUNCTION

When you press down on the PAPER FEED key, the photographic material moves ahead. The PAPER FEED key loads and unloads the photographic paper. Press the key before you begin to type. Press it again after you finish typing.

When you put photographic paper into the machine and when you take it out, part of the paper comes in contact with light. You should not set type on paper that has been in contact with light. Press the PAPER FEED key THREE TO TEN SECONDS before you begin to type. Press it again before you take out the photographic paper. The last lines of typed copy go into the lightproof cassette to be developed. The lightproof cassette protects the typed copy from the light.

Leave a top margin when typesetting. To move the photographic paper ahead (which will leave the top margin), press the PAPER FEED key.

KEYBOARD PRACTICE

EXERCISE 1A. Do the Exercise Below

1. Press the PAPER FEED key.
2. Look at the character display panel.
3. No symbol appears when you press the PAPER FEED key.

EXERCISE 1B. Practice Exercise 1B.

1. Press the PAPER FEED key for three seconds.
2. Listen to the "light humming sound".
3. Touch the left side. Feel the motor motion.

PROGRESS CHECK

Tell your teacher that you are ready for Progress Check 1.

MODULE I: LESSON 2 - Start Key

WORD STUDY

character display	A panel above the keyboard which shows characters and letters typed.
press	Put your finger on the key and hold it down.
symbol	stands for one of the pressed keys.

SPECIAL KEY

Find the START key on the keyboard below. It is on the top row on the far right.

The START key is red because it is an important key.

DEFINITION AND FUNCTION

When pressed, the START key clears the machine. All the keys that are pressed will be cancelled. It sets the length of the line. Always clear the ExecuWriter II before typesetting.

RELATIONSHIP TO THE TYPEWRITER

The electric typewriter is turned on with a start switch.

The ExecuWriter II is turned on when you press the START key.

KEYBOARD PRACTICE

EXERCISE 2A. Do Exercise 2A.

1. Press the START key.
2. Look at the character display panel. You will find that no symbol appears when you press the START key.

PROGRESS CHECK

Tell your teacher that you are ready for Progress Check 2.

MODULE I: LESSON 3 - Return Key

WORD STUDY

typeset — Set in type. The type is photographed.

SPECIAL KEY

Find the RETURN key below. The keyboard sign for RETURN is RET.

The RETURN key is red because it is an important key.

DEFINITION AND FUNCTION

The RETURN key is like the typewriter RETURN key. It is used when you end a line. When you press the RETURN key, you typeset the line typed. This means that the words you typed are printed on photographic paper. You will hear a special "sound" or feel a vibration when you press the RETURN key.

When you press the RETURN key, the line is typeset onto the photographic paper and cannot be cancelled or changed.

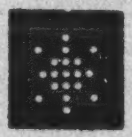
RELATIONSHIP TO THE TYPEWRITER

The RETURN key is found in the same place on the typewriter and the ExecuWriter II. The RETURN key is used when you end a line. On the ExecuWriter II, it sets the space between the lines (single, double, etc.). It returns the carriage to begin another line.

KEYBOARD PRACTICE

EXERCISE 3A. Do Exercise 3A.

1. Press the RETURN key.
2. Look at the symbol on the character display panel. It will look like the one below.



EXERCISE 3B. Do Exercise 3B.

1. Type the word *return*
2. Press the SPACEBAR once.
3. Type the word *key*
4. Press the RETURN key.

JOB 1

Type the sentences below. Press the RETURN key after each sentence.

Jack rode a horse for four hours.
Jim sold Joe our old house.
Sid came in first in the race.
The plane arrived late today.

PROGRESS CHECK

Tell your teacher that you are ready for Progress Check 3.

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